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## CLAIMS

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1. An apparatus (1) for welding, comprising a welding unit (6), a work-table (4) for supporting the workpieces (2, 3) to be welded, and clamping means (21, 22) for clamping the workpieces to the work-table in the direction towards one another during the welding operation, characterised in that the welding unit (6) comprises a friction stir welding head (13) and a fusion welding head (14).
2. An apparatus as claimed in claim 1, characterised in that the fusion welding head is a laser welding head (14).
3. An apparatus as claimed in claim 1 or 2, characterised in that it also comprises a milling unit (13, 29; 30).
4. An apparatus as claimed in claim 4, characterised in that the milling unit consists of a milling head (30) which is separate from the friction stir welding head (13).
5. An apparatus as claimed in claim 3, characterised in that the milling unit is formed by the friction stir welding head (13) fitted with a milling tool (29).
6. An apparatus as claimed in claim 3, characterised in that the milling unit consists of a milling head (30) which is separate from the friction stir welding head (13) and of a friction stir welding head (13) fitted with a milling tool (29).
7. An apparatus as claimed in any one of claims 1-6, wherein the work-table comprises at least one backing (28a, 28b) and each workpiece (2, 3) is clamped to the backing by means of a separate clamping means (21, 22), characterised in that the backing consists of at least two parts (28a, 28b) which are arranged for movement relative to one another and in that at least one workpiece (2, 3) is clamped in the same

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position between its clamping means (21, 22) and its associated backing part during milling and friction stir welding operations or milling and laser welding operations.

- 5 8. An apparatus as claimed in claim 7, c h a r a c t e r i s e d in that each workpiece (2, 3) is clamped in the same position between its clamping means (21, 22) and its associated backing part (28a, 28b) during milling and laser welding operations.

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